



**Jordan University of Science and Technology**  
**Faculty of Computer & Information Technology**  
**Computer Science Department**

CS415 Contemporary Programming Techniques

First Semester 2020-2021

**Course Catalog**

3 Credit Hours. This course provides the student with the opportunity to learn current programming techniques using a language or languages suitable for exploring such techniques. Topics include exception handling, multithreading, introduction to Windows programming based on events.

**Text Book**

<b>Title</b>	Java Programming - From Problem Analysis to Program Design
<b>Author(s)</b>	D.S.Malik
<b>Edition</b>	5th Edition
<b>Short Name</b>	Textbook
<b>Other Information</b>	

**Instructor**

<b>Name</b>	<b>Dr. Mohammed Alrefai</b>
<b>Office Location</b>	-
<b>Office Hours</b>	
<b>Email</b>	mnalrefai@just.edu.jo

**Class Schedule & Room**

Section 1:  
Lecture Time: Mon, Wed : 10:00 - 11:30  
Room: منصة الكترونية

Prerequisites		
Line Number	Course Name	Prerequisite Type
1732112	CS211 Data Structures	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction to Java and JVM	
Week 2	Basic Elements of JAVA	
Week 3	Introduction to Objects and Input / Output	
Week 4	Control Structures I: Selection	
Week 5	Control Structures II: Repetition	
Week 6	Arrays	
Week 7	Graphical User Interface (GUI) and Object Oriented Design (OOD)	
Week 8	User-Defined Methods	
Week 9	User-Defined Classes and ADTs and packages	
Weeks 10, 11	Inheritance and interface	
Week 12	Exception Handling	
Weeks 13, 14	Multithreading	

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
The student will edit, compile, execute a java program as exercise programming statements and structures (if, loop, functions). [1SO1, 1SO2]	28%	
The Student exercise the Object-Oriented principles(inheritance,composition , interfaces and generics) and techniques by writing a java program. [1SO1, 1SO2]	37%	
Students experiments the GUI components in Java [1SO1, 1SO2]	15%	
The student will test the exception handler in java [1SO1, 1SO2]	10%	
The student will experiment the threads and database connectivity in Java. The Student will connect java programs to databases and writing the code to manipulate it. [1SO1]	10%	

Relationship to Program Student Outcomes (Out of 100%)					
SO1	SO2	SO3	SO4	SO5	SO6
55	45				

<b>Policy</b>	
Attendance	Attendance is very important for the course. In accordance with university policy, students missing more than 20% of total classes are subject to failure. Penalties may be assessed without regard to the student's performance. Attendance will be recorded at the beginning or end of each class
Exams	All exams will be CLOSE-BOOK; necessary algorithms/equations/relations will be supplied if required.

Date Printed: 2020-10-20